Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Wireless Telecommunications Bureau Seeks Comment on New Implementation Deadline for TTY Access to Digital Wireless Systems for 911 Calls	))))	CC Docket No. 94-102

To: Chief, Wireless Telecommunications Bureau

I. INTRODUCTION

Pursuant to the May 17, 2000 Public Notice of the Federal Communications Commission ("Commission"),[1] Nextel Communications, Inc. ("Nextel") respectfully submits these Comments on whether December 31, 2001 is "a reasonable deadline for implementation of a digital wireless [text telephone] solution. . ."[2]

Nextel respectfully submits that December 31, 2001 is not a reasonable deadline for implementing a text telephone ("TTY") solution on its digital iDEN system. In the Public Notice, the Commission references the development of the Lucent TTY solution as the potential avenue for resolving TTY access on digital networks. However, since the Lucent TTY solution is a relatively new development and was not designed to work on all digital

[1] Public Notice, "Wireless Telecommunications Bureau Seeks Comment on New Implementation Deadline for TTY Access To Digital Wireless Systems for 911 Calls," DA 00-1091, released May 17, 2000 ("Public Notice").

[2] *Id.* at p. 3.

networks, the Commission's attempt to establish a TTY implementation deadline is premature.

The existence of the Lucent TTY solution does not end the research and development stage of TTY accessibility on digital wireless systems. For many handset and network equipment manufacturers and wireless carriers, using technologies different from those for which the Lucent solution was created, there is significant work left to be done. Thus, the Commission should not establish December 31, 2001 as the TTY implementation date, and it should postpone consideration of a deadline until wireless equipment providers and wireless carriers can provide a more accurate estimate of development and deployment timelines.

II. DISCUSSION

Nextel, like numerous other wireless providers, was granted a temporary waiver of the TTY obligation in 1998.[3] Since that time, Nextel – and its primary handset and infrastructure manufacturer, Motorola – have actively participated in the Wireless TTY Forum discussing and researching potential TTY solutions for digital wireless systems.

Since Lucent presented its TTY solution at the January 1999 Wireless TTY Forum, Motorola has been working to adapt the Lucent solution for use on its iDEN technology platform – the technology used in Nextel's digital wireless network. Although making progress on simulating and optimizing

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[3] *Id.* at p. 3, fn. 4.

the Lucent solution, Motorola has found that significant alterations are necessary to adapt it to an iDEN network. Because the Lucent solution is based on altering a network's vocoders, additional work is required since the iDEN vocoder is significantly different from the vocoder on the TDMA or CDMA technology systems for which the Lucent solution was designed. For example, because the vocoder is different, Motorola must alter the data transfer mechanism in the Lucent solution to properly transmit tones across an iDEN network. Additionally, the tone detection on iDEN is not the same as it is on CDMA and TDMA; thus, it too has to be adapted to work on the iDEN system.

Once the vocoder and tone detection issues are resolved, the solution must be optimized for proper functioning on the iDEN network. Optimization is then followed by simulation to verify that the TTY design performs properly. As of June 2000, Motorola has not completed the process of simulating and modeling the Lucent solution on iDEN, although this work is in progress.

After the TTY solution has been fully optimized and simulated on the iDEN technology, it must be integrated into iDEN software and equipment. Placing new technological features in a handset or the network is not uncommon on a digital wireless system operating in today's dynamic telecommunications marketplace, but such feature changes (whether regulatory-mandated or carrier-initiated) must be carefully planned and

scheduled so as to assure sufficient time for deployment of hardware, testing, de-bugging, systems integration, and ultimately active deployment throughout, in Nextel's case, a nationwide network. Thus, once the TTY solution is optimized for the iDEN network, it must be worked into Nextel's scheduled handset and infrastructure software releases to ensure its efficient integration into the network. Once it has been integrated into a particular software and handset release, the TTY solution has to be tested on an operating iDEN system – typically at a few cell sites operating on a single switch.

After a "real world" test proves successful, the TTY solution will be ready for deployment throughout the digital iDEN network. On Nextel's system, this deployment phase alone will require a minimum of 12 months since the Lucent solution requires modification of the base station controllers within Nextel's nationwide network. These modifications will impact the process for encoding the voice channel on iDEN's system. Because such vocoder modifications have the potential to impact voice quality for all Nextel users, these base station controller modifications will require considerable time and attention. Thus, it will take at least a year for technicians to install, test and deploy the TTY capability in Nextel's network.

Given the research and development steps that must be completed prior to deploying a TTY solution on digital systems, coupled with the twelve-month deployment process for the iDEN network, Nextel respectfully

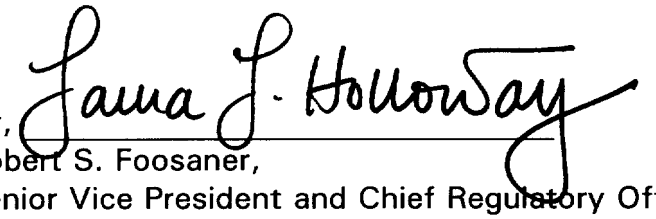
submits that the December 31, 2001 date cannot be achieved. However, once Motorola has successfully adapted the Lucent solution to iDEN and has demonstrated that it works properly, Nextel will have a more accurate prediction of the time necessary to implement TTY functionality on its system.

III. CONCLUSION

For these reasons, Nextel respectfully submits that December 31, 2001 is not a reasonable date by which digital wireless carriers can implement TTY functionality on their systems, and the Commission should not impose this deadline. Moreover, the Commission should not impose any deadline at this time. Rather, the Commission should continue to monitor the progress of TTY implementation – as it has done successfully thus far – through the Wireless TTY Forum. Once carriers and manufacturers have more closely researched the application of the Lucent solution to their

systems and tested its usefulness thereon, the Commission should revisit a proposed TTY implementation deadline.

Respectfully submitted,



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